AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				RACT ID CODI \mathbf{N}/\mathbf{A}	E	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. 0007	3. EFFECTIVE DATE 2 MAY 2003	4. REQUISITION/PURCHASE N/A	· ·			NO. (If applicable)
6. ISSUED BY CODE		7. ADMINISTERED BY (If oth	ISTERED BY (If other than Item 6) CODE			
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS SACRAMENTO 1325 J STREET SACRAMENTO, CALIFORNIA		SEE ITEM 7				
8. NAME AND ADDRESS OF CONTRACTOR (No., street, co	ounty, State and ZIP Code)		(√ 9A.	AMENDMEN.	T OF SOLICITA	ATION NO.
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			10B	. DATED (SE	EE ITEM 13)	
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The above numbered solicitation is amended as set for tended.	orth in Item 14. The hour and d	ate specified for receipt of Of	ers	is exte	ended, 🔀 is	s not ex-
Offers must acknowledge receipt of this amendment prior t	to the hour and date specified in	n the solicitation or as amende	d, by one	of the following	ng methods:	
(a) By completing Items 8 and 15, and returning submitted; or (c) By separate letter or telegram which include MENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR IN REJECTION OF YOUR OFFER. If by virtue of this amendal letter, provided each telegram or letter makes reference to	ides a reference to the solicitati R THE RECEIPT OF OFFERS PR ment you desire to change an o	IOR TO THE HOUR AND DAT offer already submitted, such a	FAILURE C E SPECIFIEI change ma	OF YOUR ACK D MAY RESU y be made by	KNOWLĖDG- JLT y telegram or	the offer
12. ACCOUNTING AND APPROPRIATION DATA (If require	d)					
	APPLIES ONLY TO MOD THE CONTRACT/ORD				S,	
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO TRACT ORDER NO. IN ITEM 10A.	: (Specify authority) THE CHANG	GES SET FORTH IN ITEM 14 /	ARE MADE	IN THE CON-	-	
B. THE ABOVE NUMBERED CONTRACT/ORDER IS appropriation date, etc.) SET FORTH IN ITEM 14, PU	MODIFIED TO REFLECT THE A JRSUANT TO THE AUTHORITY	DMINISTRATIVE CHANGES (Y OF FAR 43.103(b).	such as chan	zes in paying of	ffice,	
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED	INTO PURSUANT TO AUTHOR	ITY OF:				
D. OTHER (Specify type of modification and authority)						
E. IMPORTANT: Contractor is not,	is required to sign	this document and re	turn	cot	pies to the	issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Orga GUADALUPE RIVER PROJECT, CONSTR (COLEMAN AVENUE TO UPRR BRIDGE SAN JOSE, CALIFORNIA	UCTION CONTRACT	= -	utter where fe	asible.)		
1 ENCL						
1) 01010 (1 PAGE), 01270 (2 PAGES), 01502	(1 PAGE), 02050 (1 PAC	GE), 02110 (1 PAGE) A	ND 056	50 (7 PAG	ES).	
Except as provided herein, all terms and conditions of the dand effect.	locument referenced in Item 9/	A or 10A, as heretofore chang	jed, remain	s unchanged	and in full forc	ce
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF	CONTRAC	TING OFFICE	ER (Type or print	t)
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF A	MERICA			16C. DATE SIGNED
(Signature of person authorized to sign)		BY (Signatur	re of Contra	acting Officer	r)	

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

The work specified in this section includes construction of a reinforced concrete box culvert and other flood control and environmental restoration features along the Guadalupe River between Coleman Avenue and UPRR Bridge No. 4 in San Jose, California.

The Work shall be as specified and as shown on the Drawings and includes, but is not limited to, the following:

- 1. Clearing and Grubbing: Clear and grub the limits of excavation for the Project.
- 2. Demolition: Demolish and dispose of concrete foundations, *ties*, *ballast*, fences, pipes, and other items as shown on the Drawings.
- 3. Utilities: Demolish or relocate utilities as shown on the Drawings.
- 4. Diversion and Care of Water during Construction: Management of water flows including storm water flows, temporary diversion of stream flows and permit requirements.
- 5. Excavation: Excavation (including temporary shoring), soil-characterization for disposal or reuse (includes in-situ characterization of soils within areas shown on the Drawings as "Known Contaminated Soil".
- 6. Dewatering: Dewater as necessary to excavate for culvert, and treat and dispose of water in accordance with Specifications and regulatory requirements.
- 7. Temporary Steel Bridge: Construction, placement, and removal of temporary steel bridge.
- 8. Construction of Culvert: Construct reinforced concrete box culvert.
- 9. Railroad Construction: Construct track work on temporary steel bridge and permanent restoration of railroad after removal of the temporary steel bridge will be by others. Construct *grade crossing and* other supporting work, and furnish hardwares to UPRR.
- 10. Outlet Structure: Construct outlet structure for box culvert.
- 11. Erosion Control: Construct cellular concrete mattresses and gabions.
- 12. Instrumentation: Install and monitor instrumentation. Includes monitoring of existing instrumentation at Sobrato Garage.
- 13. Roads: Construct and maintain all temporary roads needed to accomplish the Work and permanent roads and walkways.

bid items.

1.8 DESCRIPTION OF BID ITEMS

The Pricing Schedule is presented to indicate major categories of work for the purposes of comparative bid analyses and payment breakdown for monthly progress payments. The items in the Pricing Schedule are not exhaustive and complete descriptions of the work categories. The Contractor shall determine, and include in the prices, did all materials, labor, equipment and incidentals for doing all work to complete all Contract work as shown and specified.

1.9 PRICING SCHEDULE

<u>Bid Item 1 - Mobilization and Demobilization (Lump Sum):</u> Bid item consists of all work required to set up the construction site and prepare for construction and demobilization at the completion of the Work of all plant and equipment. Mobilization shall include mobilization of general equipment and plant onto the Site, procurement of required bonds and insurance, field offices, general construction facilities, and acquisition of equipment, supplies, and incidentals necessary for starting the Work. This bid item does not cover specialized equipment and plant covered under specific Bid Items.

Bid Item 2 – Demolition (Lump Sum): Bid Item covers all work associated with removing and disposing of existing structures and debris within the work area and as shown on the Drawings, except the demolition of UPRR Bridge No. 3. The bid item includes, but is not limited to, cutting shrubs, bushes, and other vegetation; grubbing stumps; and removing stumps, grass, shrubs, bushes, other vegetation, and demolition of pavements and sidewalks, fences, *ballast*, *railroad ties*, manholes, the temporary storm drain in the culvert, drop inlets, pipes, water wells and miscellaneous concrete, and all additional demolition work called for in the Contract Documents.

Payment will be made on a Lump Sum basis.

<u>Bid Item 3 - Permanent Fencing (Linear Foot):</u> Bid Item covers all work associated with installation of permanent fencing and gates, and connection to existing fencing, all as specified in the Contract Documents. The bid item includes, but is not limited to, fencing, gates, posts, braces and top rails, accessories and padlocks.

Payment will be made based on the linear feet of fencing, including gates, installed in accordance with the Contract Documents and accepted by the Contracting Officer.

geosynthetic wall drains, sand filter and gravel drain layers, crushed rock, geosynthetic clay liner, airvent grates and associated fittings, miscellaneous metal, and all components required to complete the Culvert and outlet structure as required by the Contract Documents.

Payment will be made on a Lump Sum basis.

<u>Bid Item 9 – Backfill (Cubic Yard):</u> This Bid Item covers all work associated with Backfill. This item includes, but is not limited to, the procurement, hauling, placement, moisture control, compaction and construction control testing.

Payment will be made on the basis of in-place compacted cubic yards. Measurement will be made based upon the difference between the accepted excavated surface topography and the accepted final backfill surface topography except that no payment will be made for backfill placed outside of the vertical limits defined by the outside face of the exterior walls of the culvert and below the original ground surface.

<u>Bid Item 10 – Temporary Steel Bridge (Lump Sum):</u> This Bid Item covers all work associated with the construction of the temporary steel bridge required by the Contract Documents. Item work includes, but is not limited to, furnishing all materials, fabrication, erection, removal, and all other related work as required by the Contract Documents. It also includes all work associated with furnishing all hardwares necessary for connecting the railroad tracks to the temporary steel bridge *to UPRR*; and furnishing *and installing* complete premanufactured grade crossing package to UPRR as described in the Contract Documents.

Payment will be made on a lump sum basis.

<u>Bid Item 11 – Side Drains No. 4 and 5 (Lump Sum):</u> Bid Item covers all work associated with the construction of Side Drains Numbers 4 and 5 required by the Contract Documents. Item work includes, but is not limited to, excavation, reinforced concrete pipe, storm drain manholes, backfill and all other related work as required by the Contract Documents.

Payment will be made on a lump sum basis.

<u>Bid Item 12 – Cellular Concrete Mat (Square Yard):</u> Bid Item covers all work associated with the construction of Cellular Concrete Mats (CCM) at the outlet. Excavation and subgrade preparation are covered in Bid Item 6. The work includes, but is not limited to CCM, earth anchors, connections to adjacent structures, filter fabric, gravel drain, low flow channel conform walls and weirs, upstream transition trench cobbles, stone protection, boulders for instream cover, concrete backfill, in-stream sampling station, and cleaning of debris from behind existing fish passage weirs within the Limits of Work as required by the Contract Documents.

Payment will be made on the basis of square yards of CCM placed and approved.

<u>Bid Item 13 – Gabions (Cubic Yard):</u> Bid Item covers all work and materials associated with the construction of gabion walls and the gabion mattresses for the terrace walls as required by the Contract Documents.

Payment will be made on a cubic yard basis of completed gabion baskets. Measurement will be the nominal dimension of the completed gabion wire baskets.

provided they be scheduled at least two weeks in advance and each of them is completed during a 68 hour period between noon on Friday and 8am the following Monday.

UPRR will install the rails and guard rails to the steel bridge prior to the first 68-hour window. The Contractor shall closely coordinate and cooperate with UPRR such that their work and UPRR's work are completed within each 68- hour time frame.

First 68-hour Window: UPRR will remove tracks and ballast (estimated 4 hours). The Contractor shall remove ballast and install DSM shoring wall in gaps, excavate under footprint of bridge, move bridge and connect to pile caps. After the temporary bridge is in position, UPRR will connect the track works to the temporary steel bridge (estimated 4 hours).

Second 68-hour Window: UPRR will cut tracks (estimated 2 hours) and the Contractor shall remove the temporary steel bridge. UPRR will remove tracks from the removed temporary bridge. UPRR will install ballast, ties, and new rails including the road erossing (estimated 24 hours). UPRR will make connection to the existing rail (estimated 2 hours). The Contractor shall complete the work in this area as shown on the Sequencing Plan.

- 2. Conditional Work Windows A conditional Work Window is a period of time that railroad operations have priority over construction activities. Construction activities may occur on and adjacent to the railroad tracks within 25 feet of the centerline of the nearest track but a railroad flag person will be required. At the direction of the railroad flag person, upon approach of a train, and when trains are present on the tracks, the tracks must be cleared (i.e., no construction equipment, or materials may be present within 12 feet, and personnel within 25 feet or as directed by the Engineer, from the tracks) and all construction activity shall cease within 50 feet of the nearest track until the train has passed. Conditional Work Windows for this project are available.
- C. Construction activities will be permitted within 12 feet of the centerline of operational tracks only if absolutely necessary and local UPRR operating unit grants approval. Construction closer than 12 feet from the centerline of operational tracks shall not cause the tracks to become unoperational.
- D. The Contractor shall be advised that trains and/or equipment are expected on any track, at any time, in either direction.

3.2 INSURANCE

Contractor shall not begin work upon or over UPRR's Right-of-Way until UPRR has been furnished the proof of insurance required by the "Right-of-Entry Agreement" and UPRR's Designated Representative has advised the Contracting Officer that such insurance is in accordance with the Agreement. The required insurance shall be kept in full force and effect during the performance of work and thereafter until Contractor removes all tools, equipment, and

SECTION 02050

BRIDGE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

This work specified in this section pertains to the demolition of the existing UPRR Bridge No. 3 except the railroad ties, tracks, and ballasts, which will be removed by the Union Pacific Railroad (UPRR). The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. In the interest of conservation, salvage shall be pursued to the maximum extent possible; salvaged items and materials shall be disposed of as specified. Bridge demolition work is considered work in the river channel and shall be performed within the in-channel construction period as specified in Section 01500; GENERAL REQUIREMENTS.

Demolition of UPRR Bridge No. 3 shall not be performed unless directed by the Contracting Officer.

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330; SUBMITTAL PROCEDURES.

SD-01 Data

Work Plan; GA.

Procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, protection of channel integrity and existing vegetation in demolition work area from equipment damage, transportation of demolition materials to offsite disposal sites, and timely disconnection of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations.

1.3 PROJECT/SITE CONDITIONS

1.3.1 Dust Control

The amount of dust resulting from demolition shall be controlled in accordance with the provisions in Section 01354; ENVIRONMENTAL PROTECTION to prevent the spread of dust to occupied portions of the construction site and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as ice, flooding and pollution.

3.3.2 Vegetation

Vegetation to be removed shall consist of all heavy growth of brush, grass, and weeds.

3.3.3 Structures and Obstructions

The Contractor shall clear the site, and remove and dispose of all existing structures and obstructions for work associated with excavation and construction of bypass culvert, channel improvements, path, utility relocations, and bridge demolitions, except as otherwise noted on the Drawings. Accommodations for existing utilities are included in the Drawings. In the event that the Contractor finds existing structures or obstructions not shown on the Drawings, the Contractor shall notify the Contracting Officer immediately. Existing structures and obstructions not shown on the Drawings shall be protected in place until directed otherwise by the Contracting Officer.

Any trenching excavation or removal of structures and obstructions shall be in accordance with the Corps of Engineers Safety and Health manual, EM 385-1-1.

3.3.4 Miscellaneous Items and Debris

The Contractor shall remove abandoned buildings or structures, *railroad ties and ballast*, foundations, stone, debris, fencing, and other material within the area to be excavated or to receive fill as indicated on the Drawings.

3.4 GRUBBING

Grubbing shall consist of the removal and disposal of all stumps, buried logs, roots larger than 3 inches in diameter, non-decomposed organic matter, old paving, and other objectionable matter from the designated grubbing areas. This material, together with logs, metallic debris, other organic matter, concrete, lumber, and debris not suitable for fill and channel foundation purposes, shall be removed to a depth of not less than 18 inches below the original surface level of the ground in areas indicated to be grubbed and in areas indicated as construction areas under this contract.

3.5 REMOVAL OF OBSTRUCTIONS

3.5.1 Utility Coordination

Prior to removing an obstruction, all applicable utility relocations shall have been coordinated.

3.5.2 Existing Structures

The required removal and disposal of all designated structures within the limits of construction shall be included in clearing operations. Existing manholes, catch basins, and other structures shown on the Drawings to be removed shall be removed to the full depth of the structure, including foundations. Voids resulting from abandoned or removed structures shall be filled with suitable material as specified in Section 02200; EXCAVATION AND BACKFILL. The bottom of abandoned drainage structures shall be perforated to prevent the entrapment of water.

3.5.3 Pipe Systems:

3.5.3.1 General

Pipe and conduit shall be removed as indicated on the Drawings. All pipe and conduit left abandoned in place shall be sealed at both ends, whether it be at free ends or at the structures in which they terminate.

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SECTION 05650

RAILROADS

1 PART 1 GENERAL

1.1 SUMMARY

The work specified in this section includes furnishing necessary hardware materials and erossing materials to Union Pacific Railroad (UPRR) to make connection to the steel bridge; *furnishing and installing premanufactured panels and nessessay hardwares* and at grade crossing. Coordination with UPRR shall be as specified in Section 01502.

Removal of railroad ties, tracks and ballasts and installation of railroad, including ballasts, ties, and tracks will be performed by UPRR.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO HB-16(1996) Standard Specifications for Highway Bridges

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ASNT CP-189(1995) ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel

AMERICAN RAILWAY ENGINEERING & MAINTENANCE-OF-WAY ASSOCIATION (AREMA)

AREMA Manual(2002) Manual for Railway Engineering (4 Vol.)
AREMA Track Plans(2002) Portfolio of Track Work Plans

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 88(1999a) Soundness of Aggregates by Use of Sodium Sulfate or Magnesium

Sulfate

ASTM C 117(1995) Materials Finer Than 75 micrometer (No. 200) Sieve in Mineral

Aggregates by Washing

ASTM C 127(1988; R Specific Gravity and Absorption of Coarse Aggregate

1993el)

ASTM C 131(1996) Resistance to Degradation of Small-Size Coarse Aggregate by

Abrasion and Impact in the Los Angeles Machine

ASTM C 136(1996a) Sieve Analysis of Fine and Coarse Aggregates ASTM C 142(1978; R 1997) Clay Lumps and Friable Particles in Aggregates

ASTM C 535(1996el) Resistance to Degradation of Large-Size Coarse Aggregate by

Abrasion and Impact in the Los Angeles Machine

ASTM C 702(1998) Reducing Samples of Aggregate to Testing Size

ASTM D 75(1987; R 1997) Sampling Aggregates

ASTM D 1241(1968; R Materials for Soil-Aggregate Subbase, Base, and Surface Courses

1994el)

ASTM D 1556(2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method ASTM D 1557(1991; R Laboratory Compaction Characteristics of Soil Using Modified Effort

1998) (56,000 ft-lbf/cu. ft. (2,700 kN-m/cu.m.))

ASTM D 4791(1999) Flat Particles, Elongated Particles, or Flat and Elongated Particles in

Coarse Aggregate

ASTM E 11(1995) Wire-Cloth Sieves for Testing Purposes

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C2(2001) Lumber, Timber, Bridge Ties and Mine Ties - Preservative Treatment

by Pressure Processes

AWPA C6(1999) Cross Ties and Switch Ties Preservative Treatment by Pressure

Processes

AWPA M2(2000) Standard for Inspection of Treated Timber Products

AWPA M6(1997) Brands Used on Forest Products AWPA P2(1998) Standard for Creosote Solutions

UNION PACIFIC RAILROAD (UPRR)

Standard Drawings

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330; SUBMITTAL PROCEDURES:

SD-01 Data

Pre-manufactured Crossing Material or Surface; GA

90 days prior to installation, the brand name of the premanufactured crossing material or crossing surface material proposed for use along with manufacturer's literature concerning the product; and for built-in-place crossings, the type of materials to be used along with manufacturer's literature.

Detailed installation procedure for the premanufactured crossing material or crossing surface material proposed for use 90 days prior to installation.

Miscellaneous Track Materials; GA

Manufacturer's data for all track materials to be furnished.

Materials and Samples; GA

A complete schedule of the materials 90 days prior to UPRR installation of the materials; the schedule shall include a list of materials and quantities proposed for the work.

Hardwares shall include, but not limited to, spring clip, spring clip insulators, rail pads, and insulated weld-on shoulders.

1.4 DELIVERY, STORAGE, AND HANDLING

1.4.1 Materials

The Contracting Officer will notify the Contractor of the materials approved or disapproved. Disapproved materials that have already been delivered to the project site, shall be promptly segregated from the approved materials and removed from the premises. If materials are disapproved, acceptable replacement materials shall be provided at no additional cost to the Government. Initial approval by the Contracting Officer will not prevent the removal and replacement of materials that are materially defective or materials not meeting this specification that are discovered during construction and/or routine quality control/quality assurance operations.

The Contractor shall coordinate with UPRR for delivery.

1.5 deleted in AM-0002

1.6 PROJECT/SITE CONDITIONS

1.6.1 Coordination

The Contractor shall coordinate rail work with UPRR in accordance with Section 01502; COORDINATION WITH UNION PACIFIC RAILROAD. UPRR forces will **remove the tracks**,

ties, and ballasts at the locations shown on the Drawings and will install the tracks onto the steel bridge and reconnect the tracks after placement of the temporary steel bridge. Contractor shall furnish all hardware necessary for the connection of the tracks to the steel bridge. UPRR forces will cut the tracks and remove the tracks after prior to removal of the temporary steel bridge and will install the ballasts, ties and tracks, grade crossing (to be provided by Contractor), and reconnect the tracks after restoration of the railway over the completed box culvert between the rail cuts.

The Contractor shall coordinate with UPRR and give 48 hours notice prior to the installation of the grade crossing. UPRR representative needs to be on site during the installation.

1.6.2 License Agreement

The work under this contract is being accomplished under a license agreement between the UPRR and the Contractor in accordance with Section 01502; COORDINATION WITH UNION PACIFIC RAILROAD. If conflict exists between the Agreement and this Section, the Agreement shall take precedence.

PART 2 PRODUCTS

2.1-2.6 deleted in AM-0002

2.7 GRADE CROSSINGS

2.7.1 Crossing Material or Surface

Roadway width shall be as indicated in the contract drawings. Crossing material or surface shall be premanufactured. Premanufactured, precast concrete panels for grade crossings shall be constructed of reinforced concrete having a minimum 28-day compressive strength of 5,000 psi. Each panel shall be manufactured to meet HS20-44 loading in accordance with AASHTO HB-16, with 30% impact increment. Loading shall be based on single axle loads of 32,000 lbs. Precast crossing panels shall be the product of a company regularly engaged in the manufacture of such panels, and whose products have been successfully used in the commercial railroad industry for at least 2 years.

The Contractor shall furnish all materials necessary for UPRR to install. The Contractor shall coordinate and consult with UPRR regarding the selection of crossing material and delivery details.

2.8 MISCELLANEOUS TRACK MATERIALS

Miscellaneous track materials shall be as follows:

2.8.1-2.8.3 deleted in AM-0002

2.8.4 Spring Clip Insulator, Spring Clip. Rail Pad, Insulated Weld-On Shoulder

Spring Clip Insulators shall be as shown on UP Standard Drawing 401.

Spring Clips shall be as shown on UP Standard Drawing 409.

Rail Pads shall be as shown on UP Standard Drawing 406.

Insulated Weld-On Shoulder Springs shall be as shown on UP Standard Drawing 413.

2.8.5-2.10 deleted in AM-0002

PART 3 EXECUTION

3.1-3.2 deleted in AM-0002

3.3.1 Roadbed Preparation

Subgrade preparation shall be performed in accordance with Section 02225; PREPARATION OF SUBGRADE FOR MAINTENANCE ROAD/RIVERWALK. Roadbed surface, grade, and drainage shall be approved prior to any distribution of construction material. Where the subgrade or roadbed is damaged during distribution of materials, ruts and depressions shall be filled and compacted and the roadbed surface reapproved prior to track construction.

3.4 MAINTENANCE ROAD CROSSING

The Contractor shall furnish all maintenance road crossing materials to UPRR to install The maintenance road crossing shall be constructed at the location shown on the Drawings after UPRR completes the railroad work. Proper equipment shall be used to handle the concrete panel to avoid any damage. UPRR will inspect the road crossing during installation and after completion of the work.

UPRR will also install ballast, railroad ties and tracks. The Contractor shall closely coordinate with UPRR for works in this area.

3.4.1 Subgrade

The subgrade shall be prepared in accordance with Section 02225; SUBGRADE PREPARATION FOR RIVERWALK/MAINTENANCE ROAD. Drainage areas shall be cleaned and sloped away from the crossing in both directions along the track and the roadway.

3.4.2 Crossing Surface

The surface of the crossing shall be not greater than ¼ in higher than the top of the rails for a distance of 2 ft outside of the rails for either single or multiple-track crossings. A smooth transition shall be made between the crossing surface and the adjoining pavement.

3.4.2.1 Prefabricated Concrete Panel Crossings

Crossings and crossing materials shall be installed in accordance with the crossing manufacturer's instructions.

3.4.3 Crossing Flangways

Upon completion of the grade crossing installation, the flangeways through the crossing shall be a minimum of 2 in deep and between 2-1/2 and 3 in wide. The contractor shall ensure that adequate flangeways are provided prior to installation of the final crossing surface.

3.4.3.1 Flangeway Filler

All open crossing flangeways shall be filled with asphaltic concrete (or approved materials) and compacted as indicated in Section 02513: BITUMINOUS CONRETE (CENTER-PLANT HOT MIX).

3.4.3.2 Clean Grade Crossing Flangeways

Where grade crossing flangeways are obstructed (fill in), the contractor shall remove foreign material to provide a minimum 2 in depth and 2-1/2 in width flangeways on the gage side of the rails.

END OF SECTION